

WHAT I CLAIM IS:

1. A method for the thermal treatment of metallic workpieces, said method including the steps of:

disposing preheated workpieces in a quenching chamber;
5 surrounding said workpieces, either prior to or after said disposing step, with guide channels, which have a closed lateral surface, along a direction of flow of subsequently to be provided quenching gas; and

10 providing through said guide channels a flow of quenching gas about said workpieces to cool same.

2. A method according to claim 1, wherein said guide channels are placed about individual ones of said workpieces, or about said workpieces that are to be stacked upon one another, prior to a step of heating said workpieces.

15 3. A method according to claim 1, wherein said guide channels are placed on individual or stacked ones of said previously preheated workpieces in said quenching chamber.

4. A method according to claim 2, wherein said guide channels are moved toward said workpieces in said quenching chamber from one
20 or two sides.

5. A method according to claim 4, wherein said guide channels

are moved toward said workpieces from above and/or below.

6. An apparatus for the thermal treatment of metallic workpieces, said apparatus comprising:

a quenching chamber for receiving preheated workpieces
5 and a quenching gas for cooling same; and

guide channels for a directed flow of quenching gas about said workpieces, wherein said guide channels 30 have a closed lateral surface and surround said workpieces along a direction of flow of said quenching gas.

10 7. An apparatus according to claim 6, wherein said guide channels have a length that corresponds at least to a height of individual or stacked ones of said workpieces.

8. An apparatus according to claim 7, wherein the length of said guide channels projects beyond a height of said individual or stacked
15 workpieces by an amount equal to half of a diameter or width of said workpieces.

9. An apparatus according to claim 6, wherein said guide channels have a cylindrical shape or are adapted to the geometry of said workpieces that are to be cooled.

20 10. An apparatus according to claim 9, wherein said guide channels are cylindrical, having a circular, square or polygonal cross-

section.

11. An apparatus according to claim 6, wherein said guide channels are interconnected to form a channel system.

12. An apparatus according to claim 6, which includes means
5 for displacing said guide channels in said quenching chamber.

13. An apparatus according to claim 12, wherein said guide channels are replaceable.

14. An apparatus according to claim 6, wherein said quenching chamber is provided with an inlet for said quenching gas, wherein said
10 inlet rests sealingly against said guide channels.

15. An apparatus according to claim 6, wherein said guide channels are made of a heat-resistant material.

16. An apparatus according to claim 15, wherein said guide channels are made of steel, iron alloys or nickel alloys.

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